Analysis Report

Report No.: 14020518HKG-001

The Equipment Under Test (EUT) is a portable transmitter of a RC Car operating at 27.1206 MHz as dictated by LC oscillator. The EUT is powered by a 9.0 V DC source (1 x 9.0V battery). The EUT has a forward / backward control lever.

After switching ON the EUT and the receiver of the RC Car, activating the control levers on the EUT can control the receiver moving forward, backward and switching mode for robot and race car.

Antenna Type: External integral antenna
Antenna Gain: 0dBi
Nominal rated field strength: 68.5dBμV/m at 3m
Maximum allowed field strength of production tolerance: +/- 3dB

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 71.5dBμV/m at 3m in frequency 27.1206MHz, thus;

The EIRP = [(FS*D) ^2*1000 / 30] = 0.00424mW

Conducted power = Radiated Power (EIRP) – Antenna Gain
So;

Conducted Power = 0.00424mW.

The SAR Exclusion Threshold Level for 27.1206MHz when the minimum test separation distance is < 50mm:
= [474 * (1 + log100/f(MHz))]/2
= 371.3mW

Since the above conducted output power is well below the SAR Exclusion threshold level, so the EUT is considered to comply with SAR requirement without testing.